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EXAMINER				
TIMBLIN, ROBERT M				
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/750,885

Applicant(s)

CHKODROV ET AL.

Examiner

ROBERT TIMBLIN

Art Unit

2167

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 23 January 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 8-14 and 22-30 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 8-14 and 22-30 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 23 January 2008 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This Office Action corresponds to application 10/750,885 filed 1/5/2004.

Response to Amendment

Applicant herein amends claims 8, 10, 13, 14, 22, 24, 27, and 28, cancels claims 1-7 and 15-21 and adds claims 29-30. Accordingly, claims 8-14 and 22-30 are currently pending.

Drawings

The drawings submitted 1/23/2008 indicating figures 1-3 are objected to because the (PRIOR ART) label appears in the heading of the page and in the title of the invention. Thus, it appears that the present invention is 'PRIOR ART'. The Examiner kindly requests the (PRIOR ART) label to instead be placed accordingly on the drawing sheet as to clearly indicate the figure as prior art. For example, placing (PRIOR ART) between FIG. 1 and the flow graph would indicate that figure as prior art. A similar placement of the label in respect to figures 2 and 3 is also recommended.

Specification

The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: the computer-readable medium of claim 22 lacks antecedent basis from the specification. The Examiner requests that the medium be defined as a statutory medium (i.e. precluding the use of carrier waves, signals, etc.) as to clearly define the medium and its scope.

Claim Objections

Claim 22 is objected to because of the following informalities: in the second to last step of the claim (beginning “process data...”) the phrase “when executed by *a* processor” (emphasis added) may be unclear because it is not definite whether the processor mentioned therein is the same processor mentioned in the preamble or a different processor. Clarification as to whether this is the same processor as found in the preamble or another, different processor is respectfully requested.

Claim 29 is objected to because the period at the end of the “sequencing unit...” limitation should be replaced by a semicolon. Also, the ‘amd’ at the end of the “a correlating unit” limitation should be ‘and’ (i.e. a correction to an apparent typographical error).

Claim 29 is objected to because the language “properly correlates” is unclear in scope. Specifically, it is unclear what is meant by “properly” and if this language is necessary to distinctly define the claim. Clarification is respectfully requested.

Claim 30 is objected to because the phrase “timestamp field for *then* the data was received...” (emphasis added) found in the inserting process data step should be replaced with “timestamp field for when the data was received...”(i.e. a correction to an apparent typographical error).

Appropriate correction is required.

Claim Rejections - 35 USC § 101

35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

Claim 29 is rejected under 35 U.S.C. 101 because it relates to non-statutory subject matter. Specifically, the computing device and the units of the computing device in claim 29 may be construed as functional descriptive material composed of stored procedures (i.e. software per se). In other words, the computing device lacks the use of hardware in the claim as to make it a statutory machine. Furthermore, Applicant's published specification (paragraph 0025) states that the invention may be implemented using software. Without claiming the computing device as a hardware device, claim 29 is seen as software per se (i.e. functional descriptive material) and therefore is not statutory. See MPEP 2106.01.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 8-14, and 22-30 are rejected under 35 U.S.C. 103(a) as being unpatentable over Waldorf et al. ('Waldorf' hereafter; U.S. Patent Application 2002/0038228) in view of Cambell et al. ('Cambell' hereafter; U.S. Patent 6,856,970).

With respect to claim 8, Waldorf teaches A method for maintaining information about multiple instances of an activity related to a business process, comprising:

receiving process data (figures 2a-b and 0047-0048; e.g. business process data) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance) from each of a plurality of application programs (figure 1b, drawing references 166, 170, and 174);

receiving continuation data (figures 2b and 3, the fields of tables 208-212 as well as 302-304. For example, ACTIVITY_ID in the process table correlates an activity with a PROCESS_ID) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance), the continuation data (tables of figures 2-3) correlating (0055-0057), for each of the instances (0056, i.e. identifying instances of a process), process data (figures 2a-b and 0047-0048; e.g. business process data) for the instance received from at least one of the application programs (figure 1b, drawing references 166, 170, and 174) with process data (figures 2a-b and 0047-0048; e.g. business process data) for the same instance received from at least another of the application programs (figure 3 and drawing reference 240; e.g. an instance is correlated with a respective application via field 332); and

inserting process data (figures 2a-b and 0047-0048; e.g. business process data) for each of the instances (drawing reference 208) into instance database records (110 and figure 2b) based on the continuation data (tables of figures 2-3), wherein:

the instances (drawing reference 208) are acted upon in a sequence of processing steps (drawing reference 248 and 0057), each of the applications (figure 1b) provides process data

(figures 2a-b and 0047-0048; e.g. business process data) corresponding to a different part of the processing sequence (0060; i.e. indicating a position for an activity within a sequential process).

Waldorf fails to teach the limitations of process data for at least a portion of the instances are received in an order different from the processing sequence and preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance.

Campbell, however, teaches process data for at least a portion of the instances are received in an order different from the processing sequence (col. 13 line 11-39 and col. 17 line 42-47) as receiving partial information; and

preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance as preventing access to incomplete or inconsistent data (col. 17, line 42-47) to exclude the data that is in the process of being uploaded.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the system of Campbell would have allowed Waldorf's system to perform sophisticated data manipulation without the danger of producing incomplete or inconsistent reports. Furthermore Campbell's teaching would allow Waldorf to exclude the data that is in the process of being uploaded (col. 17 line 23-41, Campbell).

With respect to claim 9, Cambell teaches the method of claim 8, wherein said preventing access comprises preventing human users from viewing instance database records containing out-of-order data (col. 17 line 23-41, Campbell).

With respect to claim 10, Cambell teaches the method of claim 8, wherein said preventing access comprises preventing one or more display or analysis application programs from performing display of or analysis upon records containing out-of-order data (col. 13 line 12-30).

With respect to claim 11 and similar claim 25, Cambell teaches the method of claim 8, further comprising:

providing access to a first instance database record for an instance not containing out-of-order data, and preventing access to a second instance database record for the instance, wherein the second instance database record contains out-of-order data, and wherein process data in the second instance database record is not correlated to process data in the first record by continuation data (col. 13 line 32-36).

With respect to claim 12, Waldorf teaches the method of claim 11, further comprising:

receiving correlation data indicating that the first and second records pertain to the same instance; and merging the first and second records (0056 and figure 2A).

With respect to claim 13, Waldorf teaches the method of claim 8, wherein the process data is received in batch updates from the applications (0068).

With respect to claim 14, Waldorf teaches the method of claim 8, wherein:
process data from at least one of the applications is sequentially pre-sorted prior to batch update (0057 and drawing reference 248).

With respect to claim 22, Waldorf teaches A computer-readable medium having stored thereon a program for maintaining information about multiple instances of an activity related to a business process which, when executed by a processor, cause the processor to perform steps comprising:

receiving process data (figures 2a-b and 0047-0048; e.g. business process data) regarding multiple instances (0011) of an activity (drawing reference 210) from each of a plurality of application programs (figure 1B);

receiving continuation data (figures 2b and 3, the fields of tables 208-212 as well as 302-304. For example, ACTIVITY_ID in the process table correlates an activity of an instance with a PROCESS_ID) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance), the continuation data (tables of figures 2-3) correlating (0055-0057), for each of the instances (0056, i.e. identifying instances of a process), process data (figures 2a-b and 0047-0048; e.g. business process data), process data (figures 2a-b and 0047-0048; e.g. business process data) for the instance received from at least one of the application programs (figure 1b, drawing references 166, 170, and 174) with process data for the same

instance received from at least another of the application programs (figure 3 and drawing reference 240; e.g. an instance is correlated with a respective application via field 332);

and inserting process data (figures 2a-b and 0047-0048; e.g. business process data) for each of the instances (drawing reference 208) into instance database records (110 and figure 2b) based on the continuation data (tables of figures 2-3), wherein: the instances are acted upon in a sequence of processing steps (drawing reference 248 and 0057), each of the applications (figure 1B) provides process data (figures 2a-b and 0047-0048; e.g. business process data) corresponding to a different part of the processing sequence (0060; i.e. indicating a position for an activity within a sequential process).

Waldorf fails to teach the limitations of process data for at least a portion of the instances are received in an order different from the processing sequence and preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance.

Campbell, however, teaches process data for at least a portion of the instances are received in an order different from the processing sequence (col. 13 line 11-39 and col. 17 line 42-47) as receiving partial information.

preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance as preventing access to incomplete or inconsistent data (col. 17, line 42-47) to exclude the data that is in the process of being uploaded.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the system of

Cambell would have allowed Waldorf's system to perform sophisticated data manipulation without the danger of producing incomplete or inconsistent reports. Furthermore Campbell's teaching would allow Waldorf to exclude the data that is in the process of being uploaded (col. 17 line 23-41, Campbell).

With respect to claim 23, Cambell teaches the computer-readable medium of claim 22, wherein said preventing access comprises preventing human users from viewing instance database records containing out-of-order data (col. 13 line 25-30).

With respect to claim 24, Cambell teaches the computer-readable medium of claim 22, wherein said preventing access comprises preventing one or more display or analysis application programs from performing display of or analysis upon records containing out-of-order data (col. 13 line 12-30).

With respect to claim 12 and similar claim 26, Waldorf teaches the computer-readable medium of claim 25, comprising additional data representing sequences of instructions which, when executed by a processor, cause the processor to perform additional steps comprising:

receiving correlation data indicating that the first and second records pertain to the same instance and merging the first and second records (0056 and figure 2A).

With respect to claim 27, Waldorf teaches the computer-readable medium of claim 22, wherein the process data is received in batch updates from the applications (0068).

With respect to claim 28, Waldorf teaches the computer-readable medium of claim 22, wherein:

process data from at least one of the applications is sequentially pre-sorted prior to batch update (0057 and drawing reference 248).

With respect to claim 29, Waldorf teaches In a system having multiple application programs providing data with respect to activities related to particular instances of a business process to a process instance database, a computing device for managing the intake of and access to said data to and from said instance database, said computing device comprising:

a first receiving unit (0070; e.g. the system receiving from an application) to receive process data (figures 2a-b and 0047-0048; e.g. business process data) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance) from each of a plurality of application programs (figure 1b, drawing references 166, 170, and 174);

a second receiving unit (110) to receive continuation data (figures 2b and 3, the fields of tables 208-212 as well as 302-304. For example, ACTIVITY_ID in the process table correlates an activity with a PROCESS_ID) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance), the continuation data (tables of figures 2-3) correlating (0055-0057), for each of the instances (0056, i.e. identifying instances of a process), process data (figures 2a-b and 0047-0048; e.g. business process data) for the instance received from at least one of the application programs (figure 1b, drawing references 166, 170, and 174) with process data (figures 2a-b and 0047-0048; e.g. business process data) for the same instance

received from at least another of the application programs (figure 3 and drawing reference 240; e.g. an instance is correlated with a respective application via field 332);

an inserting unit (figure 1B; i.e. the system inserts data into instance database 110) to insert process data (figures 2a-b and 0047-0048; e.g. business process data) for each of the instances (drawing reference 208) into instance database records (110 and figure 2b) based on the continuation data (tables of figures 2-3);

a sequencing unit (0068; i.e. the system requests the activities in sequence) that tracks and manages (0013) the incoming application data (figure 1b; i.e. date from applications 166-174) for each instance so that it corresponds with a processing sequence (248) that determines an order of steps defined by a process (0057).

a correlating unit (figure 1, 110) that properly correlates database records of out-of-order processing data (figure 3 drawing reference 304 ; e.g. an In Table queue) for an instance (240) with the remaining processing data for that instance (0062, 0064; i.e. the In Table receives instance records as they are entered from the applications and therefore describes out-of-order data); and

a merging unit (130 and 0057; i.e. the accumulation of records of activities belonging to the same instance) that merges out-of-order processing data records for an instance with in-order processing data records (drawing reference 248) for an instance (0011 and 0080; i.e. the system 100 collects for the individual instances) where the in-order and out-of-order data records are correlated by said correlating unit (110; i.e. the instance database stores the instance data such as found in figure 2B).

Waldorf fails to teach the limitations of an ordering unit that identifies process data for any instance that is received in an order different from the processing sequence and a limiting unit that prevents access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance.

Campbell, however, teaches an ordering unit (col. 13 line 23-30 and col. 17 line 43-47); i.e. the data loader in combination with the gatekeeper mechanism identify that identifies process data for any instance that is received in an order different from the processing sequence (col. 13 line 11-39 and col. 17 line 42-47) as receiving partial information.

a limiting unit (col. 13 line 26; i.e. a gatekeeper mechanism) that prevents access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance as preventing access to incomplete or inconsistent data (col. 17, line 42-47) to exclude the data that is in the process of being uploaded.

It would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the system of Cambell would have allowed Waldorf's system to perform sophisticated data manipulation without the danger of producing incomplete or inconsistent reports. Furthermore Campbell's teaching would allow Waldorf to exclude the data that is in the process of being uploaded (col. 17 line 23-41, Campbell).

With respect to claim 30, Waldorf teaches A method for maintaining information about multiple instances, of an activity related to a business process, comprising:

receiving process data (figures 2a-b and 0047-0048; e.g. business process data) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance) from each of a plurality of application programs (figure 1b, drawing references 166, 170, and 174);

receiving continuation data (figures 2b and 3, the fields of tables 208-212 as well as 302-304. For example, ACTIVITY_ID in the process table correlates an activity with a PROCESS_ID) regarding the instances (figures 2a-2b, drawing references 206-212; e.g. instances and activities of an instance), the continuation data (tables of figures 2-3) correlating (0055-0057), for each of the instances (0056, i.e. identifying instances of a process), process data (figures 2a-b and 0047-0048; e.g. business process data) for the instance received from at least one of the application programs (figure 1b, drawing references 166, 170, and 174) with process data (figures 2a-b and 0047-0048; e.g. business process data) for the same instance received from at least another of the application programs (figure 3 and drawing reference 240; e.g. an instance is correlated with a respective application via field 332); and

inserting process data (figures 2a-b and 0047-0048; e.g. business process data) for each of the instances (drawing reference 208) into instance database records (110 and figure 2b) based on the continuation data (tables of figures 2-3), wherein each instance database record comprises a primary key (240), a timestamp field for when the data was received (256), a field noting the geographical origin of the data (254 and 0058; i.e. the Who field may indicate the application which made the entry. Figure 10 shows the multiple applications (1030-1050) and their

locations that may be included in that field), a field noting the size of the data (242), a field noting the time the data was collected (0055), and field noting the time the data was transmitted (0068; e.g. then the activity was requested), and further wherein:

the instances (drawing reference 208) are acted upon in a sequence of processing steps (drawing reference 248 and 0057), each of the applications (figure 1b) provides process data (figures 2a-b and 0047-0048; e.g. business process data) corresponding to a different part of the processing sequence (0060; i.e. indicating a position for an activity within a sequential process).

Waldorf does not expressly teach process data for at least a portion of the instances are received in an order different from the processing sequence. Further, Waldorf does not expressly teach preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially prior processing step for the instance wherein said out-of-order data records have not been correlated with the appropriate existing data records, said out-of-order records being similarly comprised to said instance database records and said out-of-order records having their data merged with existing records and then being deleted as part of said correlation process

records having their data merged then being deleted as part of said correlation process (0073; i.e. removing the instance after the activity is complete).

Cambell, however, teaches Campbell, however, teaches process data for at least a portion of the instances are received in an order different from the processing sequence (col. 13 line 11-39 and col. 17 line 42-47) as receiving partial information; and

preventing access to instance database records containing out-of-order data reflecting completion of a processing step for an instance but not reflecting completion of a sequentially

prior processing step for the instance as preventing access to incomplete or inconsistent data (col. 17, line 42-47) to exclude the data that is in the process of being uploaded;

wherein said out-of-order (col. 17 line 45-50; e.g. partial incomplete and inconsistent data of a load class) data records have not been correlated with the appropriate existing data records (i.e. partial incomplete and inconsistent data not yet received would not yet be correlated to data in the load class that is already received), said out-of-order records being similarly comprised to said instance database records (i.e. partial incomplete and inconsistent loaded data is data comprised to that load being received) and said out-of-order records having their data merged) with existing records (i.e. the synchronizing and collecting of data to a load class describes the merging of data to that load class that has already been loaded).

In the same field of endeavor, (i.e. transaction processing), it would have been obvious to one of ordinary skill in the data processing art at the time of the present invention to combine the teachings of the cited references because the system of Cambell would have allowed Waldorf's system to perform sophisticated data manipulation without the danger of producing incomplete or inconsistent reports. Furthermore Campbell's teaching would allow Waldorf to exclude the data that is in the process of being uploaded (col. 17 line 23-41, Campbell).

Response to Arguments

Applicant's arguments filed in the reply dated 1/23/2088 have been fully considered but they are not persuasive.

In the last paragraph of the reply on page 10 and continued to page 11, the Applicant argues that there is no teaching or suggestion of restricting access to already uploaded data that is

out of sequence. Further, Applicant argues that Cambell does not teach or suggest restricting or otherwise managing out of sequence data. The Examiner respectfully disagrees because in the cited portions (col. 17 line 42-47) Cambell teaches the restricting of access to incomplete or inconsistent data. That is, by restricting access to inconsistent data (i.e. out of order) Cambell corresponds to the argued limitation. In another way, "inconsistent data" is seen analogous to "out-of-order" data in that "inconsistent" suggests unorganized and therefore out-of-order data. Further, Cambell gives an example of inconsistent data in that records with corresponding message class and routing ID not greater than that of the last loaded routing ID, may be incomplete or inconsistent (Cambell, col. 17 line 60-64). Here it is seen that the data is already uploaded (i.e. because it is managed by the gatekeeper mechanism), but inconsistent and therefore out of order.

Because Cambell restricts access to inconsistent (out-of-order) data, Cambell teaches preventing access to out of sequence data.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period

will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Robert M. Timblin whose telephone number is 571-272-5627. The examiner can normally be reached on M-F 8:00-4:30.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, John R. Cottingham can be reached on 571-272-7079. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/ROBERT TIMBLIN/
Examiner, Art Unit 2167
/John R. Cottingham/

